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*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*L13 L12 and l61 L13L12 P adj2 PROMOTER578 L12L11 L10 and l68 L11L10 P NEAR2 PROMOTER1169 L10*DB=USPT; PLUR=YES; OP=ADJ*L9 L6 NEAR5 (HOST OR TRANSFORM? OR TRANSFECT? OR INFECT?)20 L9L8 L6 NEAR5 EXPRESS?0 L8L7 L6 NEAR5 HETEROLOG?0 L7L6 COLI NEAR3 W242 L6L5 5424196.PN.1 L5L4 5000000.PN.1 L4L3 5354667.PN.1 L3L2 5000000.PN.1 L2L1 4246346.PN.1 L1

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L9: Entry 17 of 20

File: USPT

Aug 29, 1989

DOCUMENT-IDENTIFIER: US 4861717 A

TITLE: Microorganisms and plasmids for the constitutive formation of creatinamidinohydrolase and processes for the production thereof

Detailed Description Text (29):

For cultivating in a fermenter, there are used three different Escherichia coli host systems, namely, Escherichia coli W 3350, Escherichia coli ED 8654 and Escherichia coli CSH 1. The plasmid pBT 2a-1 is transformed into the corresponding competent cells. After purification for individual colonies, a pre-culture is cultured overnight at 37.degree. C. in DYT medium (Miller, Experiments in Molecular Genetics, Cold Spring Harbor, 1972, 433) which contains 20 .mu.g./ml. ampicillin. The fermentation medium (DYT) is inoculated with the preculture (inoculum 1%) and, without selection for plasmid content, allowed to grow for 20 to 30 hours at 37.degree. C. After 25 hours, the creatinamidinohydrolase activity is about 600 U/g. moist mass or 4.5 U/g. of protein.

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☐

L9: Entry 12 of 20

File: USPT

Nov 21, 1995

DOCUMENT-IDENTIFIER: US 5468632 A

TITLE: Recombinant DNA compounds and expression vectors encoding para-nitrobenzyl esterase activity from bacillus

Detailed Description Text (20):

Bacillus subtilis strain NRRL B8079 was isolated in a screen designed to identify microorganisms capable of removing the para-nitrobenzyl ester from cephalosporins (Brannon et al., J. Antibiotics XXIX No. 2:121-124 1976). B. subtilis NRRL B-8079 has been deposited in the permanent culture collection of the Northern Regional Research Laboratory (NRRL), United States Department of Agriculture Service, Peoria, Ill. 61604, and is available under accession number B-8079. Escherichia coli K12 DH5.alpha..TM. (MAX Efficiency DH5.alpha..TM. Competent Cells; GIBCO BRL, Gaithersburg, Md.), which is a recA.sup.- strain that has been developed to be highly transformable and provide a stable environment for maintenance of plasmids, was used as host strain for the B. subtilis strain NRRL B8079 genomic library (see Example 1J). The recA+ E. coli K12 strain RV308, was used for high-level expression of the cloned PNB esterase gene and is a preferred host for expression of heterologous proteins in E. coli on an industrial scale. E. coli K12 RV308 has been deposited with the NRRL and is available under accession number B-15624. E. coli W ATCC 11105 can also be used as host for expression of heterologous proteins. This host strain can be obtained from the American Type Culture Collection (ATCC), Rockville, Md. 20852, under accession number ATCC 11105.

CLAIMS:

16. The transformed host cell of claim 11 that is Escherichia coli W ATCC 11105/pNB106R.
17. The transformed host cell of claim 11 that is Escherichia coli W ATCC 11105/pNB106RM.
25. The method of claim 20 wherein said recombinant host cell is Escherichia coli K12 W ATCC 11105/pNB106R.
26. The method of claim 20 wherein said recombinant host cell is Escherichia coli K12 W ATCC 11105/pNB106RM.

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L2: Entry 1 of 1

File: USPT

Mar 19, 1991

US-PAT-NO: 5000000

DOCUMENT-IDENTIFIER: US 5000000 A

TITLE: Ethanol production by Escherichia coli strains co-expressing Zymomonas PDC and ADH genes

DATE-ISSUED: March 19, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ingram; Lonnie O.	Gainesville	FL		
Conway; Tyrrell	Lincoln	NE		
Alterthum; Flavio	Gainesville	FL		

US-CL-CURRENT: 435/161; 435/170, 435/252.3, 435/252.33, 435/320.1, 435/488

CLAIMS:

We claim:

1. An Escherichia coli, which has been transformed with Zymomonas mobilis genes coding for alcohol dehydrogenase and pyruvate decarboxylase wherein said genes are expressed at sufficient levels to confer upon said Escherichia coli transformant the ability to produce ethanol as a fermentation product.
2. The Escherichia coli, according to claim 1, wherein the Escherichia coli, prior to transformation, is selected from the group consisting of ATCC 8677, ATCC 8739, ATCC 9637, ATCC 11303, ATCC 11775, ATCC 14948, ATCC 15224, and ATCC 23227.
3. The Escherichia coli, according to claim 1, wherein said Escherichia coli has been transformed with a plasmid selected from the group consisting of pLOI308-10, pLOI297, and pLOI308-11.
4. The Escherichia coli, according to claim 3, wherein said Escherichia coli has been transformed with pLOI297.
5. A method for the production of ethanol, said method comprising transforming an Escherichia coli with Zymomonas mobilis genes coding for pyruvate decarboxylase and alcohol dehydrogenase wherein said genes are expressed by the transformed Escherichia coli at sufficient levels to result in the production of ethanol as a fermentation product when said Escherichia coli is grown in an appropriate medium.
6. The method, according to claim 5, wherein said Escherichia coli is transformed with a plasmid selected from the group consisting of pLOI308-10, pLOI297, and pLOI308-11.
7. The method, according to claim 6, wherein said Escherichia coli has been transformed with pLOI297.

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 now available on STN
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 NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
 NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
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 CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
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=> s p(w)trp (3a) promoter
L1 14 P(W) TRP (3A) PROMOTER

=> s l1 and coli
L2 10 L1 AND COLI

=> dup rem l1
PROCESSING COMPLETED FOR L1
L3 7 DUP REM L1 (7 DUPLICATES REMOVED)

=> d 1-7

L3 ANSWER 1 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)DUPLICATE 1

	Full Text	Citing References
AN	1998:457233	SCISEARCH
GA	The Genuine Article (R) Number: ZT524	
TI	Multiple transcriptional control of the Lactococcus lactis trp Operon	
AU	Raya R; Bardowski J; Andersen P S; Ehrlich S D; Chopin A (Reprint)	
CS	INRA, LAB GENET MICROBIENNE, F-78352 JOUY EN JOSAS, FRANCE (Reprint); INRA, LAB GENET MICROBIENNE, F-78352 JOUY EN JOSAS, FRANCE	
CYA	FRANCE	
SO	JOURNAL OF BACTERIOLOGY, (JUN 1998) Vol. 180, No. 12, pp. 3174-3180. Publisher: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171. ISSN: 0021-9193.	
DT	Article; Journal	
FS	LIFE	
LA	English	
REC	Reference Count: 35 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*	

L3 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

Full Text	Citing References
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AN 1997:509874 BIOSIS
 DN PREV199799809077
 TI Expression of gamma-interferon and human alpha-fetoprotein hybrid gene in Escherichia coli cells.
 AU Tat'kov, S. I.; Sivolobova, G. F.; Kochneva, G. V.; Reshetnikov, S. S.; Tsivkovskii, R. Yu.; Serpinskii, O. I.
 CS State Res. Cent. Virol. Biotechnol. "Vektor", Russ. Minist. Health Med. Ind., Koltsovo 633159 Russia
 SO Molekulyarnaya Biologiya (Moscow), (1996) Vol. 30, No. 6, pp. 1299-1306. ISSN: 0026-8984.
 DT Article
 LA Russian
 SL Russian

L3 ANSWER 3 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)

Full Text	Citing References
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AN 97:390656 SCISEARCH
 GA The Genuine Article (R) Number: WZ094
 TI Expression of human gamma-interferon/alpha-fetoprotein hybrid gene in Escherichia coli
 AU Tatkov S I (Reprint); Sivolobova G F; Kochneva G V; Reshetnikov S S; Tsivkovskii R Y; Serpinskii O I
 CS STATE RES CTR, VEKTOR, KOLTISOV 633159, NOVOSIBIRSK REG, RUSSIA (Reprint)
 CYA RUSSIA
 SO MOLECULAR BIOLOGY, (NOV-DEC 1996) Vol. 30, No. 6, Part 1, pp. 780-785. Publisher: PLENUM PUBL CORP, CONSULTANTS BUREAU, 233 SPRING ST, NEW YORK, NY 10013. ISSN: 0026-8933.
 DT Article; Journal
 FS LIFE
 LA English
 REC Reference Count: 25
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 4 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)

Full Text	Citing References
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AN 95:385471 SCISEARCH
 GA The Genuine Article (R) Number: QZ230
 TI GENE-ENGINEERING APPROACHES TO BACTERIAL SYNTHESIS OF SOMATOSTATIN
 AU KARPOVA S K (Reprint); SAZINA Y T; BADER L B; SERGIYENKO O V; KHODUN M L; KRIVTSOV V F; LUNIN V G; TIKHONENKO T I; PANKOV Y A
 CS RUSSIAN ACAD MED SCI, ENDOCRINOL RES CTR, INST EXPTL ENDOCRINOL, MOSCOW, RUSSIA (Reprint); RUSSIAN ACAD AGR SCI, AGR BIOTECHNOL RES INST, MOSCOW, RUSSIA
 CYA RUSSIA
 SO VESTNIK ROSSIISKOI AKADEMII MEDITSINSKIKH NAUK, (1994) No. 12, pp. 24-29. ISSN: 0869-6047.
 DT Article; Journal
 FS CLIN
 LA Russian
 REC Reference Count: 27
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

Full Text	Citing References
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AN 1993:432612 BIOSIS
 DN PREV199396087237
 TI Synthesis of somatostatin in Escherichia coli cells: Isolation and characteristics.
 AU Karpova, S. K. (1); Sazina, E. T. (1); Karasev, V. S. (1); Bader, L. B.; Sergienko, O. V.; Shishkina, A. A. (1); Shvachkin, Yu. P. (1); Lunin, V.

G.; Tikhonenko, T. I.; Pankov, Yu. A. (1)
 CS (1) Inst. Exp. Endocrinol., Entomol. Sci. Cent., Acad. Med. Sci. Russ.,
 Moscow Russia
 SO Bioorganicheskaya Khimiya, (1993) Vol. 19, No. 6, pp. 612-622.
 ISSN: 0132-3423.
 DT Article
 LA Byelorussian
 SL Russian; English

L3 ANSWER 6 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)DUPLICATE 2

Full Text	Citing References
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AN 94:117922 SCISEARCH
 GA The Genuine Article (R) Number: MW217
 TI RECOMBINANT RNA PHAGE Q-BETA CAPSID PARTICLES SYNTHESIZED AND
 SELF-ASSEMBLED IN ESCHERICHIA-COLI
 AU KOZLOVSKA T M (Reprint); CIELENS I; DREILINNA D; DISLERS A; BAUMANIS V;
 OSE V; PUMPENS P
 CS LATVIAN ACAD SCI, INST MOLEC BIOL, KRUSTPILS STR 53, RIGA 1065, LATVIA
 (Reprint); UNIV LATVIA, RIGA 1065, LATVIA; LATVIAN ACAD SCI, INST
 MICROBIOL, RIGA 1055, LATVIA
 CYA LATVIA
 SO GENE, (27 DEC 1993) Vol. 137, No. 1, pp. 133-137.
 ISSN: 0378-1119.
 DT Article; Journal
 FS LIFE
 LA ENGLISH
 REC Reference Count: 15
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L3 ANSWER 7 OF 7 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 3

Full Text	Citing References
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AN 87227511 EMBASE
 DN 1987227511
 TI Construction and characterization of plasmid and lambda phage vector
 systems for study of transcriptional control in Escherichia coli.
 AU Hirano M.; Shigesada K.; Imai M.
 CS Institute for Virus Research, Kyoto University, Kyoto 606, Japan
 SO Gene, (1987) 57/1 (89-99).
 ISSN: 0378-1119 CODEN: GENED6
 CY Netherlands
 DT Journal
 FS 022 Human Genetics
 LA English

=> d 1-7 ab

L3 ANSWER 1 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)DUPLICATE 1

Citing References

AB The Lactococcus lactis trpEGDCFBA operon is preceded by a noncoding
 leader region. Transcriptional studies of the tip operon revealed three
 transcripts with respective sizes of 8 kb (encompassing the entire
 operon), 290 bases, and 160 bases (corresponding to paras of the leader
 region). These transcripts mast likely result from initiation at the
 unique **P-trp promoter**, transcription termination at either T1
 (upstream of the trp operon) or T2 (downstream of the trp operon), and/or
 processing. Three parameters were shown to differentially affect the
 amount of these transcripts: (i) following tryptophan depletion, the
 amount of the S-kb transcript increases 300- to 500-fold; (ii) depletion
 in any amino acid increased transcription initiation about fourfold; and
 (iii) upon entry into stationary phase the amount of the 8-hb transcript
 decreases abruptly. The tryptophan-dependent transcription control is
 exerted through transcription antitermination.

L3 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

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References

AB Recombinant plasmid was obtained that ensured the synthesis of a chimeric protein consisting of immune human interferon and C-terminal portion of human alpha-fetoprotein controlled by **promoter P-trp** in E. coli cells. It was shown that the production of chimeric protein is significantly lower than the production of gamma-interferon when using the same regulatory elements and cultivation conditions. The presence of hybrid protein in the cells was confirmed by Western blot-analysis, using antibodies to gamma-interferon as well as alpha-fetoprotein. Antiviral activity of the hybrid protein was shown.

L3 ANSWER 3 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)

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References

AB A recombinant plasmid directing the synthesis of a chimeric protein consisting of human immune interferon and the C-proximal part of human alpha-fetoprotein under control of the **P-trp promoter** was expressed in E. coli. The presence of the hybrid protein in the cells was confirmed with antibodies to IFN and AFP. Its production was substantially lower than that of IFN with the same regulatory elements and cultivation conditions. The hybrid exhibited antiviral activity.

L3 ANSWER 4 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)

Citing
References

AB Series of recombinant plasmids for expression of the synthetic gene somatostatin-14 (SST) as a fusion protein were obtained. The somatostatin gene was fused to chloramphenicol acetyltransferase (cat) or ifs deleted variant genes. Both parts of the resultant fusion protein were joined through a Met residue. The hybrid gene was expressed under the control of the cat gene promoter (Peal), the tryptophan operon **promoter (P-trp)** or the **promoter** of bacteriophage T5 (P-T5) These fusions gave insoluble polypeptide products amounting from 5-10% of the total cellular protein under constitutive biosynthetic conditions (P-cat) to 5-30% upon induction (P-trp, P-T5). A correlation between the efficiency of expression and the length of cat, the power of the promoter used and the absence or presence of transcription terminators, was studied. The scheme for SST isolation from bacterial cells was developed. SST was liberated from the fused polypeptide by treatment with cyanogen bromide and purified to homogeneity by a combination of chromatographic steps: gel filtration, ion-exchange and rpHPLC. The renatured recombinant SST showed specific biological and immunological activities and had 98% purity. The yield was 1 mg of the purified cyclic SST/1 culture of E.coli.

L3 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

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References

AB A synthetic gene coding for somatostatin-14 (SST) was cloned in plasmid expression vectors in frame with the chloramphenicol acetyl transferase (CAT) gene, both genes being divided by a Met residue. The hybrid gene was expressed under the control of the CAT gene promoter (P-cat) or the tryptophan operon **promoter (P-trp)**. The fused genes gave insoluble polypeptide products amounting from 5% of the total cellular protein under constitutive biosynthesis conditions (P-cat) to 30% upon induction (P-trp). SST was liberated from the fused polypeptide by treatment with cyanogen bromide, purified to homogeneity by gel-filtration and reverse phase HPLC, and finally refolded by dilution and air oxidation. The renatured recombinant SST showed the specific biological and immunological activities of the native peptide.

L3 ANSWER 6 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)DUPLICATE 2

Citing
References

AB The Escherichia coli RNA phage Q beta coat protein-encoding gene (C) was amplified from native Q beta RNA using a reverse transcription-PCR technique. Gene C contains sequences coding for both the 133-amino acid (aa) Q beta coat protein (CP) and the 329-aa read-through protein (A1) consisting of CP and an additional 196-aa C-terminal sequence, separated from CP within the C gene by an opal (UGA) stop codon. Primers ensuring the natural environment for gene C, especially within the ribosome-binding site, and supplying C with unique restriction sites at both ends have been prepared. An amplified 1062-bp PCR fragment was positioned under the control of the strong E. coli trp promoter (P-trp) within a pGEM-derived plasmid. The synthesis of gene C products was confirmed electrophoretically and immunologically. An immunodiffusion test with anti-Q beta phage antibodies and electron microscopy evaluation of the purified recombinant products showed that when expressed, the Q beta C gene was responsible for high-level synthesis and correct self-assembly of Q beta CP monomers into capsids indistinguishable morphologically and immunologically from Q beta phage particles, which we plan to use as surface display vectors.

L3 ANSWER 7 OF 7 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 3

Citing References

AB We constructed a family of λ phage and plasmid vectors which facilitate cloning and quantitative analysis of transcriptional regulator in both single and multiple copies. Their expression system was modified from the ara-trp-lac fusion operon of plasmid pMC81 [Casadaban and Cohen, J. Mol. Biol. 138 (1980) 179-207], which is designed to assay both promoters and terminators with a single vehicle. To eliminate transcriptional and translational polar effects liable to occur in the original fusion operon upon insertion of a foreign nucleotide sequence, intracistronic Rho-dependent terminators, that are present within the trpB gene and distal to the cloning site were deleted, and DNA spacers containing stop codons were introduced immediately before and after the cloning site. In analysis of the cloned trp regulatory region, the λ phage system faithfully reproduced the tight regulation by tryptophan characteristic to the natural trp operon on the E. coli chromosome, whereas the plasmid counterpart exhibited a substantially relaxed response. Comparative studies on the relative strengths of various promoters and terminators have further demonstrated that the λ phage vector system permits accurate assays of exceptionally strong promoters like P(trp) and λ p(L) without disturbing the bacterial growth, while being sensitive enough for detecting low-level transcription under the control of weak promoters or potent terminators. Cloning with the λ phage vector can be greatly facilitated by transferring the target regulatory site precloned with the plasmid onto the phage genome through in vivo recombinant.

=> s coli (3a) w

L4 1385 COLI (3A) W

=> s l1 and l4

L5 0 L1 AND L4

=> s coli (3a) 9637

L6 257 COLI (3A) 9637

=> s l6 and trp

L7 0 L6 AND TRP

=> dis his

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NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 17:25:52 ON 27 SEP 2002

L1 14 S P(W)TRP (3A) PROMOTER
L2 10 S L1 AND COLI
L3 7 DUP REM L1 (7 DUPLICATES REMOVED)
L4 1385 S COLI (3A) W
L5 0 S L1 AND L4
L6 257 S COLI (3A) 9637
L7 0 S L6 AND TRP

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